

FIG. 1

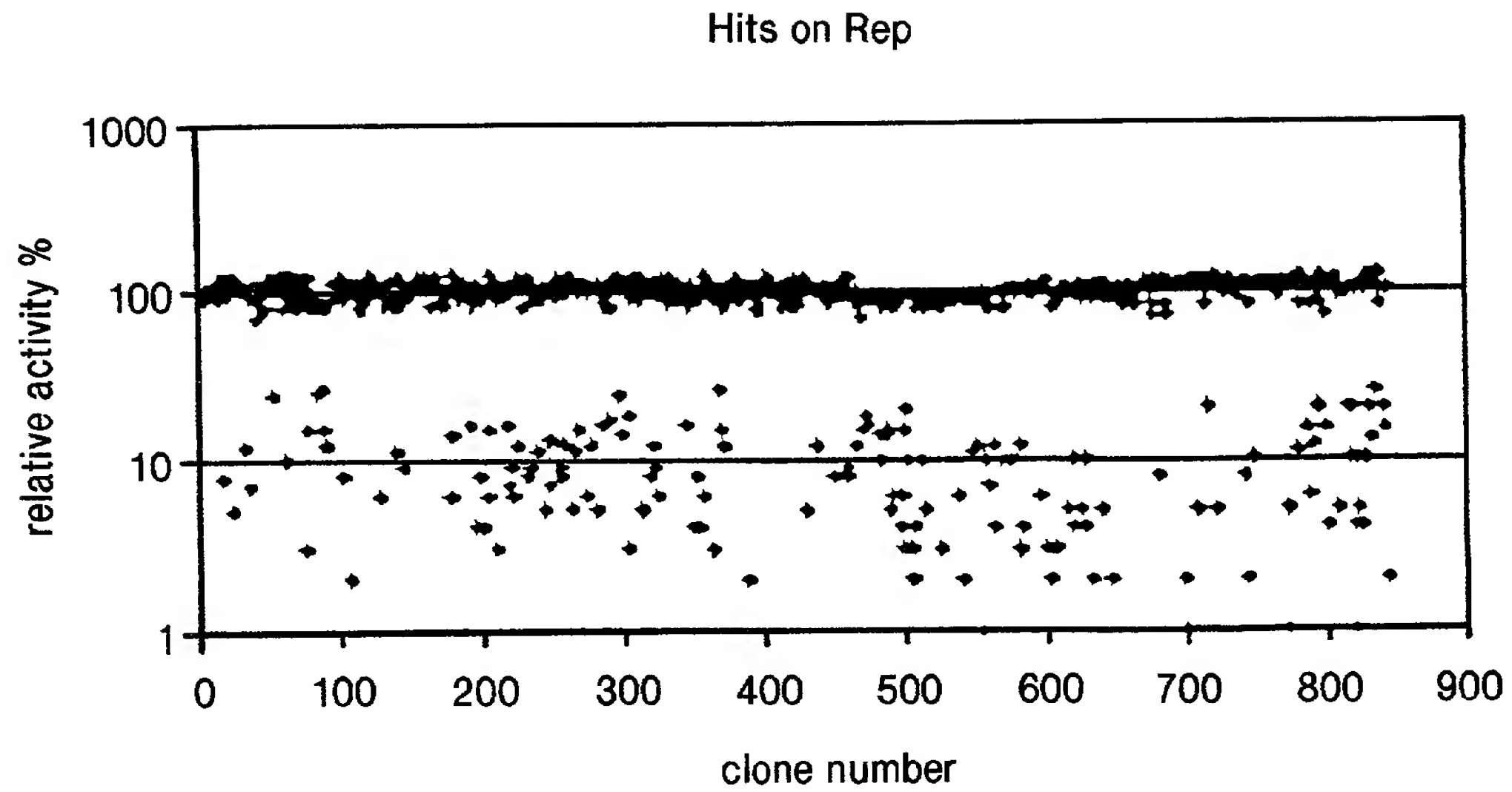


FIG. 2A

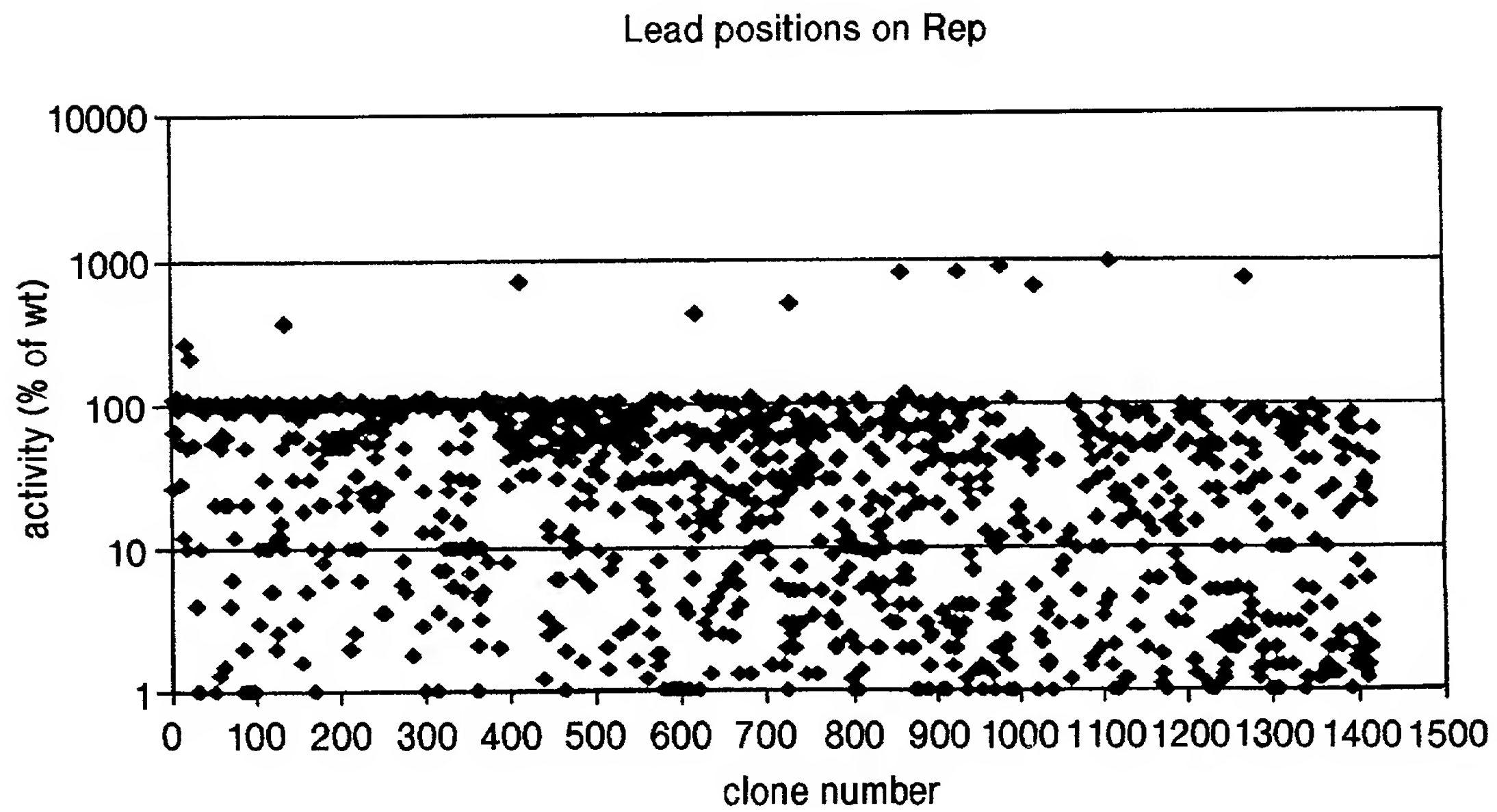


FIG. 2B

10 20 30 40 50 60
1 MPGFYEIVIKVPSDLDEHLPGISDSFVSWVAEKEWELPPDSMDLNLIEQAPLTVAEKLQ 60
2 MPGFYEIVIKVPSDLDEHLPGISDSFVNWVAEKEWELPPDSMDLNLIEQAPLTVAEKLQ 60
3 MPGFYEIVLKVPSDLDEHLPGISNSFVNWVAEKEWELPPDSMDPNLIEQAPLTVAEKLQ 60
4 MPGFYEIVLKVPSDLDEHLPGISNSFVNWVAEKEWELPPDSMDPNLIEQAPLTVAEKLQ 60
5 MPGFYEIVLKVPSDLDEHLPGISDSFVSWVAEKEWELPPDSMDLNLIEQAPLTVAEKLQ 60
6 MPGFYEIVIKVPSDLDEHLPGISDSFVNWVAEKEWELPPDSMDLNLIEQAPLTVAEKLQ 60
7 MATFYEIVIRVPFDVEEHLPGISDSFVDWVTGQIWELPPESDLNLTLVEQPQLTVADRIR 60
C M**FYE**:*VP*D***HLPGIS+SFV:WV***WELPP*SD**+*L*EQ**LTVA****
70 80 90 100 110 120
1 RDFLVQWRRVSKAPEALFFVQFEKGESYFHLHLVETTGVKSMVLGRFLSQIRDKLVQTI 120
2 RDFLVQWRRVSKAPEALFFVQFEKGESYFHLHLVETTGVKSMVLGRFLSQIRDKLVQTI 120
3 REFLVEWRRVSKAPEALFFVQFEKGETYFHLHLVLIETIGVKSMVVGRYVSQIKEKLVTRI 120
4 REFLVEWRRVSKAPEALFFVQFEKGETYFHLHLVLIETIGVKSMVVGRYVSQIKEKLVTRI 120
5 REFLVEWRRVSKAPEALFFVQFEKGDSYFHLHLVETTVGVKSMVVGRYVSQIKEKLVTRI 120
6 RDFLTEWRRVSKAPEALFFVQFEKGESYFHMHLVETTGVKSMVLGRFLSQIREKLIQRI 120
7 RVFLYEWNKFSKQ-ESKFFVQFEKGSEYFHLHTLVETSGISSMVLGRYVSQIRAQLVKVV 119
C R:FL++W***SK**E**FFVQFEKG+:YFH*H:L+ET:G**SMV:GR::SQI::*L*::*
130 140 150 160 170 180
1 YRGIEPTLPNWFVAVTKTRNGAGGGNKVVDECYIPNYLLPKTQPELQWAWTNMEEYISACL 180
2 YRGIEPTLPNWFVAVTKTRNGAGGGNKVVDECYIPNYLLPKTQPELQWAWTNMEEYISACL 180
3 YRGVEPQLPNWFVAVTKTRNGAGGGNKVVDDCYIPNYLLPKTQPELQWAWTNMDQYLSACL 180
4 YRGVEPQLPNWFVAVTKTRNGAGGGNKVVDDCYIPNYLLPKTQPELQWAWTNMDQYLSACL 180
5 YRGVEPQLPNWFVAVTKTRNGAGGGNKVVDDCYIPNYLLPKTQPELQWAWTNMDQYISACL 180
6 YRGIEPTLPNWFVAVTKTRNGAGGGNKVVDECYIPNYLLPKTQPELQWAWTNMEQYLSACL 180
7 FQGIPTQINDWVAITKVKK--GGANKVVD SGYIPAYLLPKVQPELQWAWTNLDEYKLAAL 177
C **G:EP:***W*A*TK*****GG*NKVD:*YIP*YLLPK*QPELQWAWTN*:Y:*A*L
190 200 210 220 230 240
1 NLAERKRLVAQHLTHVSQTQEQNKENLNPNSDAPVIRSKTSARYMELVGWLVD RGITSEK 240
2 NLAERKRLVAHDLTHVSQTQEQNKENLNPNSDAPVIRSKTSARYMELVGWLVD RGITSEK 240
3 NLAERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWLVD RGITSEK 240
4 NLAERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWLVD RGITSEK 240
5 NLAERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWLVD RGITSEK 240
6 NLTERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWLVD KGITSEK 240
7 NLEERKRLVAQFLAESSQRS-QEASQREFSADPVIKSKTSQKYMALVNWLVEHGITSEK 236
C NL+ERKRLVA*+L***SQ***Q*****+***S**PVI*SKTS**YM*LV*WL*V*+GITSEK
250 260 270 280 290 300
1 QWIQEDQASYISFNAASNSRSQIKAALDNAGKIMALT KSAPDYLVGPAPPADIKTNR IYR 300
2 QWIQEDQASYISFNAASNSRSQIKAALDNAGKIMALT KSAPDYLVGPAPPADIKTNR IYR 300
3 QWIQEDQASYISFNAASNSRSQIKAALDNASKIMSLTKTAPDYLVGSNPPEDITKNRIYQ 300
4 QWIQEDQASYISFNAASNSRSQIKAALDNASKIMSLTKTAPDYLVGSNPPEDITKNRIYQ 300
5 QWIQEDQASYISFNAASNSRSQIKAALDNASKIMSLTKTAPDYLVGQNPPE DISSNRIYR 300
6 QWIQEDQASYISFNAASNSRSQIKAALDNAGKIMSLTKTAPDYLVGQQPVEDISSNRIYK 300
7 QWIQENQESYLSFNSTGNSRSQIKAALDNATKIMSLTKSAVDYLVGSSVPEDISKNR IWQ 296
C QWIQE*Q*SY*SFN***NSRSQIKAALDNA:KIM+LTK:A*DYL VG::**+DI::NRI*:
310 320 330 340 350 360
1 ILELNGYEPAYAGSVFLGWAQKRFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT 360
2 ILELNGYDPAYAGSVFLGWAQKRFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT 360
3 ILELNGYDPQYAASVFLGWAQKKFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT 360
4 ILELNGYDPQYAASVFLGWAQKKFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT 360
5 ILEMNGYDPQYAASVFLGWAQKKFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT 360
6 ILELNGYDPQYAASVFLGWATKKFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT 360
7 IFEMNGYDPAYAGSILYGWCQRSFNKRNTVWLYGPATTGKTNIAEAI AHAVPFYGCVNWT 356
C I+E+NGY*P:YA:S***GW***:F*KRNT*WL*GPATTGKTNIAEAI AH+VPFYGCVNWT

FIG. 3A

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      370      380      390      400      410      420
1  NENFPFND CVDKMVIWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIDPTPVIIVTS 420
2  NENFPFND CVDKMVIWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIDPTPVIIVTS 420
3  NENFPFND CVDKMVIWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIEPTPVIIVTS 420
4  NENFPFND CVDKMVIWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIEPTPVIIVTS 420
5  NENFPFND CVDKMVIWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIDPTPVIIVTS 420
6  NENFPFND CVDKMVIWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIDPTPVIIVTS 420
7  NENFPFND CVDKMLIWEEGKMTNKVVESAKAILGGSKVRVDQKCKSSVQIDSTPVIIVTS 416
C  NENFPFND CVDKM*IWEEGKMT*KVVESAKAILGGSKVRVDQKCKSS*QI+*TPVIIVTS

      430      440      450      460      470      480
1  NTNMC AVIDGNSTTFEHQQPLQDRMFKFELTRRL EHD FGVTKQEVKEFFRWAQDHVTEV 480
2  NTNMC AVIDGNSTTFEHQQPLQDRMFKFELTRRL EHD FGVTKQEVKEFFRWAQDHVTEV 480
3  NTNMC AVIDGNSTTFEHQQPLQDRMFKFELTRRL DHDFGVTKQEVKDFFRWASDHVTDV 480
4  NTNMC AVIDGNSTTFEHQQPLQDRMFKFELTRRL DHDFGVTKQEVKDFFRWASDHVTDV 480
5  NTNMC AVIDGNSTTFEHQQPLQDRMFKFELTKRLEHD FGVTKQEVKDFFRWASDHVTEV 480
6  NTNMC AVIDGNSTTFEHQQPLQDRMFKFELTRRL DHDFGVTKQEVKDFFRWAKDHVVEV 480
7  NTNMC VVDGNSTTFEHQQPLEDRMFKFELTKRLPPDFGKITKQEVKDFFAWAKVNQVPV 476
C  NTNMC *V* DGNSTTFEHQQPL*DRMFKFELT+RL: *DFGK*TKQEVK+FF*WA: ***+:V

      490      500      510      520
1  AHEFYVRKGGANKRPAPDDADKSEPKRA-----CPSVADPSTSDAEG 522
2  AHEFYVRKGGANKRPAPDDADKSEPKRA-----CPSVADPSTSDAEG 522
3  AHEFYVRKGGAKKR PASNDADVSEPKRQ-----CTSLAQPTTSDAEA 522
4  AHEFYVRKGGAKKR PASNDADVSEPKRQ-----CTSLAQPTTSDAEA 522
5  THEFYVRKGGARKRPAPNDADISEPKRA-----CPSVAQPSTSDAEA 522
6  EHEFYVKKGGAKKR PAPSDADISEPKRV-----RESVAQPSTSDAEA 522
7  THEFKVPRELAGTKGAEKSLKRPLG DVTNTSYKSLEKRARLSFVPETPRSSDVTVDPAPL 536
C  :HEF*V+***A:***A: :***.*****: +:***:***A*:

      530      540      550      560      570      580
1  APVDFADRYQNKCSRHAGMLQMLFPCKTCERMNQNFNICFTHGTRDCSECFP--GVSESQ 580
2  APVDFADRYQNKCSRHAGMLQMLFPCKTCERMNQNFNICFTHGTRDCSECFP--GVSESQ 580
3  P-ADYADRYQNKCSRHVGMNLM LFPCKTCERMNQISNVCFTHGQRDCGECFPGMSESQPV 581
4  P-ADYADRYQNKCSRHVGMNLM LFPCKTCERMNQISNVCFTHGQRDCGECFPGMSESQPV 581
5  P-VDYADRYQNKCSRHVGMNLM LFPQRQCERMNQNV D ICFTHGVMDCAECFP-VSESQPV 580
6  S-INYADRYQNKCSRHVGMNLM LFPQRQCERMNQNSN ICFTHGQKDCLECFP--VSESQP 579
7  RPLNWN SRYDCKCDYHAQFDNISNKCDECEYLNRGKNGCICHNVTHCQICHG----- 588
C  :::+:**RY**KC**H:**:*****C::CE**N*::::C**H*:::C.*C**...::+::::

      590      600      610      620
1  PVVRKR TYRKLCAIHLLGRAPEIACSACDLVNVDLDDCVSEQ 623
2  PVVRKR TYRKLCAIHLLGRAPEIACSACDLVNVDLDDCVSEQ 623
3  SVVKKK TYQKLCPIHHILGRAPEIACSACDLANVDLDDCVSEQ 624
4  SVVKKK TYQKLCPIHHILGRAPEIACSACDLANVDLDDCVSEQ 624
5  SVVRKR TYQKLCPIHHIMGRAPEVACSACELANVDLDDCDMEQ 623
6  VSVVKK AYQKLCYIHHIMG-KVPDACTACDLVNVDLDDCIFEQ 621
7  -----IPPWEKENLSDFGDFDDANKEQ 610
C  :+*:*:*:*:*:*:*:*:*:*:*:*:*:*:*D*DD*: :EQ
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FIG. 3B